

Listing of Claims

This listing of claims replaces all prior versions, and listings, of claims in the application:

Claims 1-11. (Canceled)

12. (Currently Amended) A phase shift mask comprising:
a plurality of ~~features~~ regions having different step heights;

a first plurality of boundaries continuous sloped phase edge between first adjacent features in said plurality of features regions having different step heights, at least a plurality of said boundaries comprising a continuous sloped phase edge, wherein the first continuous sloped phase edge spans a first lateral distance between the first adjacent regions; and

a second continuous sloped phase edge between second adjacent regions having different step heights, wherein the second continuous sloped phase edge spans a second lateral distance between the second adjacent regions.

13. (Currently Amended) The phase shift mask of claim 12, wherein:

the phase shift mask is adapted to ~~be exposed~~ expose a substrate with using light electromagnetic radiation having a wavelength~~[[,]]~~; and

~~wherein a plurality of the boundaries have a continuous sloped edge with a first lateral distance,~~ the first lateral distance ~~being~~ is approximately on the order of said wavelength.

14. (Currently Amended) The phase shift mask of claim ~~[[13]]~~ 12, wherein the phase shift mask further comprises:

~~another plurality of the boundaries have a~~ third continuous sloped phase edge between third adjacent regions having different step heights, wherein the third continuous sloped phase edge spans with a ~~second~~ third lateral distance between the third adjacent regions.

15. (Currently Amended) The phase shift mask of claim ~~[[14]]~~ 12, wherein the first continuous sloped edges phase edge ~~having the first lateral distance are~~ is perpendicular to the second continuous sloped edges phase edge ~~having the second lateral distance.~~

16. (Currently Amended) The phase shift mask of claim 12, wherein the phase shift mask comprises a ~~timeless~~ transmission phase shift mask.

17. (Currently Amended) A method comprising:

exposing a substrate using a phase shift mask including
that comprises a pattern comprising a plurality of features
regions having different step heights, and a plurality of
boundaries first continuous sloped phase edge between first
adjacent features in said plurality of features regions having
different step heights, and at least a plurality of said
boundaries comprising a second continuous sloped phase edge
between second adjacent regions having different step heights,
and to imaging image the pattern onto a layer of resist material
on a wafer the substrate,

wherein the first continuous sloped phase edge spans a
first lateral distance between the first adjacent regions and
the second continuous sloped phase edge spans a second lateral
distance between the second adjacent regions.

18. (Original) The method of claim 17, further
comprising:

developing the resist material without a second exposure.

19. (Original) The method of claim 18, wherein the second
exposure comprises a trim mask exposure.

20. (Currently Amended) The method of claim 17, wherein:
said exposing comprises exposing the substrate with using
light electromagnetic radiation having a wavelength~~[[,]]~~ i and
~~wherein a plurality of said boundaries have a~~ the first
lateral distance is approximately on the order of the
wavelength.

21. (Currently Amended) The method of claim 17, wherein:
the ~~features~~ regions having different step heights
~~comprises~~ comprise clear phase shift regions, and
~~wherein the boundaries are between adjacent phase shift~~
~~regions.~~

22. (Canceled)

23. (New) The phase shift mask of claim 12, wherein the
plurality of regions comprises a plurality of clear regions.

24. (New) The phase shift mask of claim 12, wherein the
first adjacent regions having different step heights comprise
adjacent 0 and π regions.

25. (New) The phase shift mask of claim 12, wherein:
the first lateral distance is dimensioned to avoid phase
conflict between the first adjacent regions; and
the second lateral distance is dimensioned to avoid phase
conflict between the second adjacent regions.

26. (New) The method of claim 17, wherein the first adjacent regions having different step heights comprise adjacent 0 and π regions.

27. (New) The method of claim 17, wherein exposing the substrate using the phase shift mask comprises shifting a phase of light transmitted through the phase shift mask.

28. (New) The method of claim 17, wherein:
the first lateral distance is dimensioned to avoid phase conflict between the first adjacent regions; and
the second lateral distance is dimensioned to avoid phase conflict between the second adjacent regions.